REMARKS

In the Office Action of December 13, 2006, the Examiner objected to Figs.

5(a) and 5(b). Applicant has amended the figures to overcome the objection.

Claims 1-12 were analyzed for patentability in the Office Action and

claims 1-3, 5-9 and 12 were rejected for being anticipated by Saboff (USPN

5154878). Claims 4 and 10-11 were rejected for being unpatentable over Saboff

as modified by a publication to Segal titled "On the fly Program Modification:

Systems for Dynamic Updating". Claim 8 was rejected for being directed to

nonstatutory subject matter.

Applicant has cancelled claims 1-12 and provided herewith new claims

13-24. The new claims recite the following enumerated attributes of the

invention:

(1)   The claimed "computing apparatus" is connected to a network and

functions as a router, and "data" stored in the data storage section include routing

information in the network;

(2)   The "execution section" includes an event handler to be called

when occurrence of a corresponding event is detected;

(3)   The "execution instruction section":

(a) awaits occurrence of an event,

(b) maintains a data-pointer for specifying at least one of the

plurality of data stored in the data storage section, and

(c) when occurrence of the corresponding event is detected, specifies the execution section by the pointer stored in the pointer storage section, causing the execution section to execute computation by use of the at least one of the plurality of data specified by the data-pointer;

(4)   The "event" awaited by the execution instruction section includes reception of a packet from the network, and the "computation" executed by the execution section called by the execution instruction section is related to the routing information; and

(5)   The claimed configuration enables the event handler to be updated while keeping a state of communication or socket in the router.

In comparing the now claimed invention to the art, Applicant asserts that the claims are patentable over Saboff. That is, the reference discloses "a system for changing a software library during the execution of a software application using the software library". See Saboff, abstract, lines 1-2. However, as admitted by the Examiner, Saboff does not teach that Saboff's system can be connected to a network and functioning as a router, as indicated by above attribute (1) and as recited in the claims. Accordingly, the cited references fail to anticipate the claims. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USP2d 1913, 1920 (Fed. Cir. 1989) (an anticipating reference must show "the identical invention...in as complete detail as is contained in the claim").

Regarding Segal, the Examiner asserts that this reference teaches use of

Saboff's system for the updating of Internet packet router. However, Segal

provides only a single sentence, on pages 61-62, which discloses that "[f]or one

application – the updating of Internet packet router – we did a timing analysis".

That is, Segal does not teach or suggest how one skilled in the art at the time of

invention could apply Saboff's system to the router. As such, the rejection based

on the combination of these references is not proper. *Ex parte Chicago Rawhide*

Mfg. Co., 223 USPQ 351, 353 (BPAI 1984) ("the art, without the benefit" of

Applicant's specification, must provide the suggestion to "make the necessary

changes in the reference device" and produce the claimed invention).

In comparison with the art, the claimed invention provides a specific

configuration that applies updating of functions without halting execution of a

software program to a router. Namely, the claimed invention specifically adopts

an event handler to be called when occurrence of a corresponding event is

detected via the execution section, which can be replaced from the first execution

section to the second execution section, as indicated with attribute (2) referenced

above. Here, when reception of a packet from the network is detected, a

corresponding event handler will be called, and computation related to the routing

information will be executed by the event handler, as indicated with attribute (4)

referenced above and recited in the claims.

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Moreover, the claimed invention specifically forms the execution

instruction section to await an occurrence of an event, and to specify, when the

occurrence of the corresponding event is detected, the execution section by the

pointer, as indicated with attribute (3) referenced above and recited in the claims.

The claimed invention further specifically forms the execution instruction section

to maintain a data-pointer for specifying at least one of the plurality of data stored

in the data storage section, and to cause the execution section to execute

computation by use of the at least one of the plurality of data specified by the

data-pointer, as indicated by attribute (3) referenced above and recited in the

claims.

In this manner, the claimed configuration enables the event handler to be

updated while keeping a state of communication or socket in the router, as

indicated in attribute (5) above and recited in the claims.

Furthermore, Applicant asserts that each of the above stated attributes and

related points are supported in the application as filed. Regarding attribute (2),

"the event handler is specified as the execution section by the pointer" is

supported on page 23, lines 20-21, and "the execution instruction section is ... the

section calling the event handler corresponding to the event conditional upon the

case of acquisition of the event" is supported on page 23, lines 26-28.

With respect to attribute (3), "in step S1401, occurrence of the event is

awaited" is supported on page 24, line 1, and "in step S1405, the execution

section executes computation specified by the pointer by using the data. For

example, in cases where the control packet is received, the event handler

corresponded to the event of reception of the control packet is called" is supported

on page 24, lines 13-16. Applicant also notes that the application discloses on

page 11, lines 18-29:

> "Fig. 9 is an illustration of the execution instruction section 104 expressed by programming language. In (a), the pointer variable "p" for specifying the data stored in the data storage section 103 is defined. In (b), value 0x37468AB8 is substituted with the pointer variable "p" for the data. In (c), since the predetermined execution condition has been fulfilled, the function specified by the pointer "fp" is called. At this point, the pointer variable "p" for the data is given as an argument. Thereby the function specified by the pointer "fp" is called and stored in the data storage section 103, so that computation is executed by using the data specified by the value 0x37468AB8. Note that in Fig. 9, although only one data is passed to the function specified by the pointer "fp", multiple data may be passed".

With respect to attribute (4), "the router detects these occurrences such as

the reception of the packet ... as the 'event'" is supported on page 23, lines 14-15,

and "the router receives the route information transmitted from the other router

and re-computes the route information stored as the data" is supported on page 23,

lines 7-8.

With respect to attribute (5), "since it is not required to halt the router, it

becomes possible to update or add the event handler with storing ... state of

communication or socket as they are" is supported on page 25, lines 13-16.

As each of the above stated attributes is not taught or suggested in the

references, the claimed invention is patentable thereover and a notice of allowance

indicating as such is respectfully requested.

Respectfully submitted,
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